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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/831,322	08/15/2001	Thomas Klotz	KLOTZ (PCT)	2585

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EXAMINER

DINH, DUC Q

ART UNIT	PAPER NUMBER
2674	

DATE MAILED: 01/24/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	09/831,322	KLOTZ, THOMAS	
	<b>Examiner</b>	<b>Art Unit</b>	
	DUC Q DINH	2674	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) Responsive to communication(s) filed on 27 August 2001.
- 2a) This action is FINAL.      2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) Claim(s) 23-44 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 23-44 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) The oath or declaration is objected to by the Examiner.

#### Priority under 35 U.S.C. §§ 119 and 120

- 13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) All b) Some \* c) None of:  
1. Certified copies of the priority documents have been received.  
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) The translation of the foreign language provisional application has been received.
- 15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

#### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                           | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____ . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4 . | 6) <input type="checkbox"/> Other: _____ .                                   |

## DETAILED ACTION

### *Specification*

The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) TITLE OF THE INVENTION.
- (b) CROSS-REFERENCE TO RELATED APPLICATIONS.
- (c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
- (d) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC (See 37 CFR 1.52(e)(5) and MPEP 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text are permitted to be submitted on compact discs.) or  
REFERENCE TO A "MICROFICHE APPENDIX" (See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.)
- (e) BACKGROUND OF THE INVENTION.
  - (1) Field of the Invention.
  - (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
- (f) BRIEF SUMMARY OF THE INVENTION.
- (g) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
- (h) DETAILED DESCRIPTION OF THE INVENTION.
- (i) CLAIM OR CLAIMS (commencing on a separate sheet).
- (j) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
- (k) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

#### **Content of Specification**

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should

be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.

Or alternatively, Reference to a "Microfiche Appendix": See MPEP § 608.05(a). "Microfiche Appendices" were accepted by the Office until March 1, 2001.

- (e) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
  - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
  - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (f) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

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- (g) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (h) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (i) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet (37 CFR 1.52(b)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (j) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (k) Sequence Listing, See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on August 15<sup>th</sup>, 2001 has been received. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim(s) 32-35 and 43-44 is/are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3. Claims 32-33 and 43-44 are vague and indefinite with regard to the recited "device". It is not clear that the device is referred to the display device or add-on components or the switch/control elements.

4. Claim 37 recites the limitation "the graphic" in line 2. There is insufficient antecedent basis for this limitation in the claim.

The examiner examines the application based on the best understood of the claim language.

***Claim Objections***

5. Claim 23 is objected to because of the following informalities: in line 3 “.” (the period) should be cancelled. Appropriate correction is required.

***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

- (e) the invention was described in
  - (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
  - (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

7. Claims 23, 25, 28-32, 36, 38, 38, 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Jagger et al. (U. P. Patent No. 5,841,428) hereinafter Jagger.

In reference to claims 23-24, Jagger discloses in Fig. 3 a rotary circuit control device with changeable graphic having a flat panel display 16 (corresponding to flat panel display device), cover plate 28 (corresponding to the add-on component) that receives the rotary knob 12 (corresponding to the switching/controlling) element as claimed (col.7, lines 11-45).

In reference to claim 25, Jagger discloses that a cathode ray tube display is used for the image display (col. 3, lines 13-15).

In reference to claims 28-29, Jagger discloses that the cover plate 28 (add-on) is transparent and covers the display 16 (col. 7, lines 46-50).

In reference to claim 30, Jagger discloses that the knob 12 is arranged in the cover plate 28 as claimed (see Fig. 3).

In reference to claim 31, Jagger discloses that the knob 12 is a rotary control as claimed (see Fig. 2).

In reference to claim 32, Jagger discloses in FIGS. 16 and 17 again has a turnable knob 12f snap engaged on an annular base member 31f which is bonded to the transparent cover plate 28f of a flat panel display 16f within the image display area in the manner previously described. A small integrated circuit board or chip 98 is adhered to the surface of cover plate 28f within the base member 31f (see Fig. 16-17).

In reference to claim 36, Jagger discloses that the graphic display indicates the switching condition in Fig. 2.

In reference to claim 38, Jagger discloses that the transparent cover plate 28 which may be glass or clear plastic (col. 7, lines 30-31).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 26, 33-35, 37, 39 and 40-42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jagger et al. (U. P. Patent No. 5,841,428), hereinafter Jagger 428', in view of Jagger (U. P. Patent No. 5,977,955), hereinafter Jagger, hereinafter Jagger 955'.

In reference to claims 26, Jagger 428' fails to disclose that the flat display panel is an LCD or an LED display. Jagger 955' discloses an operator/circuit interface with integrated display screen having screen 36 in this particular example of the invention is a liquid crystal display but may also be of any of the other known types of flat panel display that generate changeable images in response to signals received from a display controller 38 through a multi-conductor bus 39. The controller 38 may be of any of the known designs and in many cases is an internal component of a computer. Changing of the graphics 33 as depicted in FIG. 3 may variously be initiated by programming, by actuation of another device such as a code key on a keyboard (not shown) or in response to operation of the control device 12, 13, 14 or 16 with which the graphics are associated ((col.7, lines 29-40).

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to substitute the Jagger 955' liquid crystal display for the display of Jagger 428' for providing image with higher resolution to display clearer information for the device

In reference to claims 33 and 37 Jagger 955' discloses that the flat panel display controllers which are a component of the above described embodiments of the invention may be of the known designs. Such controllers are available commercially along with instructions for programming desired graphics. As will be apparent from the foregoing, the graphics which are appropriate to different embodiments of the invention may take diverse different forms. One

example of suitable software is presented at the end of this specification. This example causes alternating displays of the words "ON" and "OFF" adjacent a switch cap in response to successive depressions of the switch cap and thus is usable with the control switch of electrical devices of the type which turn on in response to a first operation of the switch and then turn off in response to the following operation of the switch (col. 15, lines 20-34).

In reference to claims 34-35, Jagger 955' discloses that the screen 36 may be either monochrome or one which produces multi-colored images (col.7, lines 40-41).

In reference to claim 39 Jagger 428' and 955 fails to disclose that the add-on component is made of metal. Absent a showing of critically and/or unexpected result, it would have been obvious to one of ordinary skill in the art to use preferred materials as desired as was judicially recognized with IN RE ALLER, 105 USPQ 233 (CCPA 1955), which recognizes that the use of preferred materials of well known element is normally not desired toward patentable subject matter.

In reference to claims 40-42, Jagger 955' discloses that the display 34 having switching elements 12,14,16 having plurality windows 33 as claimed

10. Claims 27 and 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Jagger et al. (U. P. Patent No. 5,841,428), in view of Levin et al. (U. P. Patent No. 6,154,201).

In reference to claims 27 and 43-44, Jagger discloses everything except the display is an LED or plasma. Levin et al. discloses a control knob having a display for providing an image updated in response to manipulation of the knob. displaying a graphical user Display 14 can be

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any suitable display device, such as an LED display, LCD display, gas plasma display, CRT, or other device. In some embodiments, display 14 can include a touch-sensitive surface to allow a user to touch displayed images directly on the display 14 to select those images and an associated setting or function (col. 5, lines 10-15). In addition, Levin et al. discloses a apparatus and method of the present invention provide an control knob for a device that includes greater control functionality for the user. The linear and transverse degrees of freedom of the knob allow the user to select functions, settings, modes, or options with much greater ease and without having to take his or her hand off the knob. Force feedback may also be added to the knob to provide the user with greater control and to inform the user of options and selections through the sense of touch. Force feedback detent implementations of the present invention provide overlapping detent ranges to allow more accurate control of a knob by a user within closely-spaced detents, and an efficient, convenient method for defining detents from periodic waves (col. 3, lines 23-36).

It would have been obvious for one of ordinary skill in the art at the time of the invention was made to provide the LED or Plasma display device of Levin in the device of Jagger for providing a display with higher resolution for display information for the system and providing the linear and transverse degrees of freedom of the knob allow the user to select functions, settings, modes, or options with much greater ease and without having to take his or her hand off the knob.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **DUC Q DINH** whose telephone number is **(703) 306-5412**. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **RICHARD A HJERPE** can be reached on **(703) 305-4709**.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks

Washington, D.C. 20231

**Or faxed to:**

**(703) 872-9314 (for Technology Center 2600 only)**

Hand-delivery response should be brought to: Crystal Park II, 2121 Crystal Drive, Arlington, Va Sixth Floor (Receptionist)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is **(703) 306-0377**.

DUC Q DINH  
Examiner  
Art Unit 2674

DQD  
January 20, 2003



SUPERIOR QUALITY

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